DOCUMENT RESUME

ED 043 111 24 EA 003 056

TITLE	Alternative Organizational Forms. Analysis of Literature and Selected Bibliography. Analysis and Bibliography Series, No. 2.
INSTITUTION	Oregon Univ., Eugene. ERIC Clearinghouse on Educational Administration.
SPONS AGENCY	Department of Health, Education, and Welfare, Washington, D.C. National Center for Educational Research and Development.
BUREAU NO	BR-8-0353
PUB DATE	Sep 70
CONTRACT	OEC-0-8-080353-3514
NOTE	23p.
EDRS PRICE	EDRS Price MF-$0.25 HC-$1.25
DESCRIPTORS	*Bibliographies, Extended School Year, Flexible Scheduling, Individualized Instruction, *Literature Reviews, Middle Schools, Nongraded System, *Organization, Team Teaching

ABSTRACT

This review analyzes literature dealing with attempts to modify traditional organizational features of educational systems. These attempts involve: (1) different approaches to instruction; (2) alterations in time scheduling; and (3) new organizational forms, such as the middle school. A 156-item bibliography of relevant literature is included. (RA)

analysis and bibliography series, no. 2

ED0 431111

Alternative Organizational Forms

EA 003 056

ERIC Clearinghouse on Educational Administration

+6

ED043111

ALTERNATIVE ORGANIZATIONAL FORMS

Analysis of Literature and Selected Bibliography

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ERIC Clearinghouse on Educational Administration
University of Oregon
Eugene, Oregon 97403

September 1970
Analysis and Bibliography Series, No. 2
Clearinghouse Accession Number: EA 003 056

ERIC and ERIC/CEA

The Educational Resources Information Center (ERIC) is a national information system operated by the United States Office of Education. ERIC serves the educational community by disseminating educational research results and other resource information that can be used in developing more effective educational programs.

The ERIC Clearinghouse on Educational Administration, one of twenty such units in the system, was established at the University of Oregon in 1966. The Clearinghouse and its nineteen companion units process research reports and journal articles for announcement in ERIC's index and abstract bulletins.

Research reports are announced in Research in Education (RIE), available in many libraries and by subscription for $21 a year from the United States Government Printing Office, Washington, D. C. 20402. Most of the documents listed in RIE can be purchased through the ERIC Document Reproduction Service, operated by the National Cash Register Company.

Journal articles are announced in Current Index to Journals in Education. CIJE is also available in many libraries and can be ordered for $34 a year from CCM Information Corporation, 909 Third Avenue, New York, New York 10022. Annual and semiannual cumulations can be ordered separately.

Besides processing documents and journal articles, the Clearinghouse has another major function--information analysis and synthesis. The Clearinghouse prepares bibliographies, literature reviews, state-of-the-knowledge papers, and other interpretive research studies on topics in its educational area.

The Clearinghouse operates under contract with the Office of Education of the United States Department of Health, Education, and Welfare. This publication was prepared pursuant to that contract. Contractors undertaking such projects under government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.

FOREWORD

In mid-June 1970 the Clearinghouse received an urgent request from Central ERIC in the U.S. Office of Education to prepare selected bibliographies and brief analyses of literature on eleven critical topics related to school organization and administration.

The bibliographies and analyses were required by USOE's National Center for Educational Research and Development (formerly the Bureau of Research) in planning its new program of directed research and development. School organization and administration is one of four areas of education chosen by the center to receive concentrated research and development assistance. The others are reading, early childhood, and vocational education.

Through a joint effort the Clearinghouse staff completed the bibliographies and analyses for shipment to USOE by July 2, the deadline date.

The analysis and bibliography combined here focus on the following questions: (1) What distinctive patterns for organizing instruction at the classroom, building, and school system levels exist? (2) Is there evidence of effectiveness of these in inner-city, suburban, and rural settings? (3) Is there evidence on costs and advantages of such alternatives? (4) How might alternatives be developed and tested?

The literature cited in the bibliography and analyzed in the paper was drawn from a search of the two ERIC index catalogs, Research in Education and Current Index to Journals in Education, and from the following non-ERIC sources: Books in Print, Cumulative Book Index, Education Index, Public Affairs Information Service, Sociological Abstracts, Social Sciences and Humanities Index, and Book Review Digest. Although the urgency of the request precluded a full and comprehensive search and analysis of the literature, the reviews and bibliographies are intended to assess accurately some of the current developments and emerging trends on the topic.

Many of the documents cited in the bibliography can be ordered from the ERIC Document Reproduction Service. Instructions for ordering these documents are given at the end of the bibliography.

Philip K. Piele
Director

Analysis of Literature on
ALTERNATIVE ORGANIZATIONAL FORMS

Attempts to alter the traditional organizational features of educational systems have involved (1) different approaches to instruction, such as individualized instruction, team teaching, and nongraded schools; (2) alterations in time schedules, including flexible scheduling and extensions of the school year; and (3) new organizational forms, such as the middle school.

A review of the literature indicates that research findings have yet to demonstrate clearly the effectiveness of alternative organizational forms over traditional forms, even though participants have been favorably disposed to the new forms. It is apparent that a more firmly established research base is needed to establish the effectiveness of each of these forms.

The Extended School Year

The current status of actual and potential plans for the extended school year are summarized by Adams (1970). Wehmhoefer (1968) reviewed the literature on the staggered four-quarter system and discussed the advantages and disadvantages of this system.

Another analysis of the rescheduled school year (Varner 1968) was published by the NEA. The usual reasons cited for the extended school year are based on the need to economize, to improve teacher status, to deal with the teacher shortage, to improve and enrich education for all pupils, to achieve pupil acceleration, and to keep youth busy and off the streets during the summer months. Despite these claimed advantages, Varner stated that experimentation and adoption of extended

school year plans have not been widespread.

Bauman (1966) proposed that the school year be scheduled on a quarter system whereby only 75 percent of the students would be in school at the same time and the school year would be extended to eleven months. Three years later, Bauman (1969) reasserted his view that school systems could reduce their costs by adopting the four-quarter rotational school calendar.

Cuddy (1969) reported on the rescheduled school year in the Metropolitan School District of Warren Township, Indiana.

The school system of metropolitan Atlanta, in its second year of extended-year operation, is considered the closest to an approach that emphasizes improved education, instead of more efficient use of facilities or economy. A report by the Atlanta Public Schools (1968) describes the new program and contains reports to parents and pupils concerning the four-quarter instructional program. After the new program had been in use for three quarters, Carson and Bentley (1969) surveyed reactions of superintendents, Steering Committee members, teachers, principals, students, parents, and influential community leaders. Strong support for the program was found among all groups.

Middle Schools

Clinchy (1960b) described two middle schools designed to improve the transition of elementary pupils to a modern high school program featuring individualized, self-directed study and research. A "how-to" book by McCarthy (1967) presents some principles of organization and operation of a middle school. Popper (1967) analyzed the organization of the middle school. Murphy (1967) profiled eleven middle schools designed with a sense of innovation and adaptability, matching institutions to the needs and potentials of children.

To determine the current status of middle schools, Alexander (1968) secured detailed data from a 10 percent random sample of 110 middle schools stratified

by USOE regions. The study concluded that there is currently movement toward a different grade organization of the school ladder, but that the new middle school organizations in general fail to provide a program and instructional organization differing very much from those in the predecessor schools. Detailed descriptions of eight existing middle schools are appended.

Kindred (1968) devoted six chapters of a compendium to the consideration of major aspects of intermediate school operation. The Philadelphia School District (1968) reported on specifications and instructional space requirements for a middle school in that city.

Pansino (1969), indicating that the number of middle schools in the United States in 1966 was 499, pointed out the disadvantages of the junior high school in contrast to the advantages of the middle school.

Prompted by the growth in the number of middle schools in the past four years, the Educational Research Service (Stemnock 1969) prepared a detailed report on the characteristics of each individual middle school. Comments by principals of middle schools, an index to school systems with middle schools, a bibliography of fifteen books and pamphlets, and twenty-six articles are included.

A national survey by the American Association of School Administrators (1968) collected information regarding grade organization patterns in 449 of the 515 school districts enrolling 12,000 or more pupils. The survey repeated a similar one made in 1963. Of interest are the four percent rise in the 4-4-4 or 5-3-4 middle school plan and the six percent rise in the 6-2-4 plan since the 1963 study was completed. When instructional and grouping practices of the surveyed districts are considered, however, some of the middle schools in the data may not qualify as bona fide "middle schools." No real conclusion can be drawn from this study on the question of whether the junior high school is being replaced by the middle school.

Team Teaching

Team teaching is a much-discussed alternative form of organizing instruction at the classroom level. In an undated study, the Ontario Institute for Studies in Education attempted to blend educational change theory with empirical evidence. Two case studies that are composites of many field studies are used as examples. An outline of experimental approaches to planned change in school systems in Boston, Chicago, Michigan, New York, and Philadelphia, and a twenty-nine-item annotated bibliography are appended to the report.

A study by Wall and Reasoner (1962) describes and evaluates a summer academic program for grades one through three involving a team of three or four teachers and a teacher aide. Caton and others (1966) reported on an extended summer program conducted in 1965 and 1966 to provide teachers with training in team teaching, nongrading, and effective staff utilization as a means of improving pupil instruction. Evaluation findings indicated that participating teachers exhibited growth in these areas.

Davis (1966) in a book showing how to organize a team teaching program, described ten such programs in elementary and secondary schools in Ohio, Pennsylvania, California, Florida, Massachusetts, and Illinois. Franklin's book (1967) contains selected readings on a number of educational innovations, among them team teaching.

Wigderson (1968) defined team teaching and outlined concepts and problems associated with it. A twenty-two page bibliography contains entries dating from 1958 to mid-1968. Sowers (1968 a) viewed team teaching as offering the benefits of optimizing the distribution of scarce educational resources while moving toward the established goal of individualized instruction.

Nongraded Schools

Howard and Bardwell (1966) authored a book containing specific directions for establishing a nongraded school. Lewis (1966) reported on a demonstration summer program conducted to serve as a model for educators from approximately thirty-five public school systems whose interests lay in the development of a nongraded elementary school program. The program was concluded to be generally a success.

Miller and others (1967) presented useful strategies for implementing and evaluating the nongraded school.

Shinn (1967) compiled a bibliography of books and articles on nongraded elementary school systems. Another bibliography (McLoughlin 1967) is the outgrowth of an evaluation of the nongraded school in progress at St. John's University. This 372-item annotated bibliography lists journal articles, books, unpublished theses and dissertations, and brochures, handbooks, and guides developed by local school systems.

Splawn and Stoker (1967) presented a set of administrative guidelines proposed for the implementation of the nongraded system. Smith (1968) detailed the practical issues involved in converting from a traditional to a nongraded elementary school.

Steere (1967) compared the effectiveness of a nongraded high school with that of a traditionally graded high school in the same city. No significant diffierences between the two schools were found with respect to gain in reading comprehension, gain in mechanics of English, attitudes, or critical thinking ability. However, graded students gained significantly more in mathematical reasoning than nongraded students. The overall interaction effect between the schools and sex and between the schools and ability level was negligible.

Rogers and Breivogel (1968) discussed research findings applicable to the nongraded plan of school organization. In a review and critique of research literature, the authors noted conflicting findings and problems that make it

difficult to generalize results to other situations. The bibliography and selected references include thirty-seven books and seventy-five periodicals.

The nongraded plan of school organization put into effect at Sacramento's Will C. Wood Junior High School in 1964 was evaluated and compared with graded programs at other schools. The following results were noted: (1) The academic status of the two nongraded groups remained virtually the same, (2) the gains made by the graded pupils in the matched-pair group exceeded those made by the nongraded pupils, (3) attendance did not decrease as a result of the nongraded program, and (4) teachers generally agreed with the theory of the nongraded plan, feeling that it was a valuable addition to the junior high school (Delavan and Hartwig 1967).

An evaluation of the Amherst ungraded secondary schools assessed the degree to which the schools achieved objectives of the program (Frederickson and others 1968).

Individualized Instruction

Esbensen (1968) described a program of individualized instruction in the Duluth Public School System. A monograph by Sowers (1968c) contains a comprehensive proposal for elementary school organization. A bibliography of ?? items published between 1961 and 1967 is appended.

Simmons and Garvue (1969) reported findings from a study of the social and economic effects of adopting individually prescribed instruction programs by elementary and secondary schools in Florida. Difficulties envisioned by the communities are discussed and recommendations made. A 27-item bibliography is included.

Individually Prescribed Instruction (IPI) has been in operation in suburban Pennsylvania's Oakleaf Elementary School since 1964 (Neill and others 1968). Limited testing and general evaluations of teachers and administrators working

in IPI schools indicate a favorable improvement in student achievement. However, evidence on the effects of IPI is still fragmentary. Neill concluded that three to five years of perfecting IPI in demonstration projects similar to Oakleaf's, as well as a retraining program for administrators and teachers, will be required prior to extensive evaluative research.

A study designed to measure the effect of an IPI program on the cognitive achievement of fourth and fifth grades compared 141 IPI students and 198 non-IPI students (Lewy 1969). No significant differences between groups was established, indicating the IPI and non-IPI students achieve equally well in the areas tested. Nonsignificant trends suggest, however, that (1) IPI as a method has been most effective in the language area; (2) in mathematics, IPI students do not achieve as well as non-IPI students; (3) fifth grade girls in the upper intelligence levels tend to achieve better in non-IPI settings than their IPI counterparts; and (4) success of an IPI program depends on content, method of administration, student characteristics, and teacher role. A 27-item bibliography is appended.

Educational System for the Seventies (ES-70) is a research and demonstration program in which 19 local school districts, their respective state education departments, the U.S. Office of Education, and other interested organizations are cooperating to develop an improved secondary school curriculum. After examining the results of these research and demonstration activities and analyzing the experiences of the school districts involved, the ES-70 network will disseminate the findings for use by other educational systems across the nation.

Flexible Scheduling

Four studies conducted on junior and senior high schools that have used some form of modular scheduling suggest that a proper way to evaluate flexible scheduling includes observation of behavior, measurement of attitudes and opinions, and assessment of pupil achievement (Maxey 1968).

Selected Bibliography on

ALTERNATIVE ORGANIZATIONAL FORMS

Adams, Velma A. "The Extended School Year: A Status Report." School Management, 14, 6 (June 1970), 13-19.

Alexander, William J., and Kealy, Ronald P. "From Junior High School to Middle School." High School Journal, 53, 3 (December 1969), 151-163.

Alexander, William M. "The New School in the Middle." Phi Delta Kappan, 50, 6 (February 1969), 355-357.

Alexander, William M. A Survey of Organizational Patterns of Reorganized Middle Schools. Final Report. Gainesville, Florida: University of Florida, BR-7-D-026, July 1968. ED 024 121: $4.95 paper, $0.50 microfiche.

American Association of School Administrators. Grade Organization Patterns. ERS Reporter. Washington, D. C.: AASA, November, 1968. ED 032 633: paper not available from EDRS, $0.25 microfiche. Available from Educational Research Service, 1201 16th Street, N. W., Washington, D. C. 20036.

Archer, N. Sidney, and others. Administrative and Instructional Adjustments Resulting from the Use of Programed Materials. Harrisburg, Pennsylvania: State Department of Public Instruction, NDEA-VIIA-961, 1964. ED 003 203: $6.95 paper, $0.75 microfiche.

Atlanta Public Schools. Effective Instruction: A Report on the Four-Quarter Plan of Organization. Atlanta, Georgia: Atlanta Public Schools, 1968. ED 028 544: $1.80 paper, $0.25 microfiche.

Banathy, B. H. Instructional Systems. Palo Alto, California: Fearon Publishers, Inc., 1968.

Barson, J., and Jones, G. A Procedural and Cost Analysis Study of Media in Instructional Systems Development, Parts A and B. East Lansing: Michigan State University, September 1, 1965. ED 011 959: $14.05 paper, $1.25 microfiche.

Barson, J., and Oxhandler, E. K. "Systems: An Approach to Improving Instruction." Audiovisual Instruction, (May 1965).

Baughman, M., ed. Block-of-Time Scheduling Practices in Junior High Schools. Danville, Illinois: Interstate, 1960.

Bauman, W. Scott. The Flexible System: An Economic Analysis of Advantages of the Quarterly Calendar in Public Schools. Toledo, Ohio: University of Toledo, College of Business Administration, March 1966. ED 011 688: $2.40 paper, $0.25 microfiche.

Bauman, W. Scott. "The School Calendar Dilemma--A Solution for the Approaching Crisis." Oregon Business Review, 28, 6 (June 1969). ED 033 436: $0.35 paper, $0.25 microfiche.

Beggs, D.W., ed. Team Teaching. Indianapolis: Indiana University Press, 1965.

Beggs, D.W., and Buffie, E.G., eds. Nongraded Schools in Action. Indianapolis: Indiana University Press, 1967.

Behrendt, David. "Away with Tradition." American Education, 6, 1 (January-February 1970), 18-22.

Bench, Varnell. "Concepts of Team Teaching." Team Teaching, 2, 1 (September 1967), 2-3. ED 033 068: $0.20 paper, $0.25 microfiche.

Blackburn, Jack E. "Middle Schools: Dreams and Realities." High School Journal, 53, 3 (December 1969), 145-150.

Bough, Max. "Theoretical and Practical Aspects of the Middle School." NASSP Bulletin, 53, 335 (March 1969), 8-13.

Brandt, R. "Middle School in a Nongraded System." Journal of Secondary Education, 43 (April 1968), 165-170.

Briggs, L.J., and others. Instructional Media: A Procedure for the Design of Multi-Media Instruction. Pittsburgh: American Institute for Research, 1967.

Brimm, R.P. "Middle School or Junior High? Background and Rationale." NASSP Bulletin, 53, 335 (March 1969), 1-7.

Brod, Pearl. "The Middle School in Practice." Clearing House, 43, 9 (May 1969), 530-532.

Brown, Bartley F. The Nongraded High School. Englewood Cliffs, New Jersey: Prentice-Hall, 1963.

Bush, Robert N., and Allen, Dwight W. A New Design for High School Education: Assuming a Flexible Schedule. New York: McGraw-Hill, 1964.

Carson, W.E., and Bentley, Ernest L. Four-Quarter-School-Year, Results of an Exploratory Study of the Four-Quarter School Year in Metropolitan Atlanta. Atlanta, Georgia: Supplementary Educational Center, Metropolitan Atlanta Region, 1969.

Caton, Jay, and others. The Extended Summer Program: A Two Year Summary. Lakewood, Colorado: Jefferson County Public Schools, November 1966. ED 012 263: $5.70 paper, $0.50 microfiche.

Chesler, Mark Arnold. Social Structure and Innovation in Elementary Schools. Ann Arbor: University of Michigan, 1966. ED 014 817: $6.45 paper, $0.75 microfiche.

Clark, Kenneth. "Alternative Public School Systems," Harvard Educational Review, (Winter 1968), 100-113.

Clinchy, Evans. Rich Township High School, Olympia Fields Campus, Rich Township, Illinois. Profiles of Significant Schools. New York: Educational Facilities Labs., Inc. May 1960. ED 031 872: $1.50 paper, $0.25 microfiche.

Clinchy,Evans. Two Middle Schools, Saginaw Township, Michigan. Profiles of Significant Schools. New York: Educational Facilities Labs., Inc., September 1960. ED 031 871: $1.40 paper, $0.25 microfiche.

Clinchy, Evans. Wayland Senior High School, Wayland, Massachusetts. Profiles of Significant Schools. New York: Educational Facilities Labs., Inc., January 1960. ED 031 873: $1.70 paper, $0.25 microfiche.

Cogswell, John F., and others. Analysis of Instructional Systems. Report of a Project, New Solutions to Implementing Instructional Media through Analysis and Simulation of School Organization. Final Report. Santa Monica, California: System Development Corporation, 1966. ED 010 577: $13.70 paper, $1.25 microfiche.

Cogswell, John F. New Solutions to Implementing Instructional Media through Analysis and Simulation of School Organization. Santa Monica, California: System Development Corporation, March 24, 1964. ED 010 580: $0.70 paper, $0.25 microfiche.

Compton, Mary F. "The Middle School." Education Digest, 34, 8 (April 1969), 22-24.

Corrigan, R. E. The Development of Group Tutorial Instructional Methods at Alamitos School District. Garden Grove, California: undated.

Cuddy, Edward H. The Year-Round School or the Rescheduled School Year. Indianapolis, Indiana: Metropolitan School District of Warren Township, September 1969.

Cuff, William A. "Can Middle Schools Cure a National Disgrace?" American School Board Journal, 157, 5 (November 1969), 38-39.

Curtis, Thomas E., ed. The Middle School. Albany, New York: Center for Curriculum Research and Services, 1968. ED 032 623: paper not available from EDRS, $1.25 microfiche. Available from Faculty-Student Association of the State University of New York at Albany, Inc., State University Bookstore, 1400 Washington Avenue, Albany, New York, for $2.00.

Cushman, M. L., and Sturges, A. W. Innovations for Instructional Improvement. Grand Forks: University of North Dakota, September 1965. ED 011 206: $3.05 paper, $0.50 microfiche.

Dagne, Frank A., and Barnicke, Donald W., "Two Schools That Are Nongraded: How...What...Why." Instructor, 78, 7 (March 1969), 63-70.

Davis, Harold S. How to Organize an Effective Team Teaching Program. Successful School Management Series. Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1966. ED 026 299: not available from EDRS. Available from Prentice-Hall, Inc., Englewood Cliffs, New Jersey, for $2.25.

Davis, Harold S. Team Teaching: A Selected Annotated Bibliography. Cleveland: Educational Research Council of Greater Cleveland, Ohio, 1967. ED 023 159: $2.90 paper, $0.25 microfiche.

Davis, Harold S., and Bechard, Joseph E. Flexible Scheduling. Cleveland: Educational Research Council of America, 1968. ED 022 254: paper not available from EDRS, $0.25 microfiche. Available from Educational Research Council of America, Rockefeller Building, Cleveland, Ohio, for $1.00.

Delavan, Frank E., and Hartwig, Keith E. A Partial Assessment of the Will C. Wood Junior High School Nongraded Plan of Organization. Sacramento, California: Sacramento City Unified School District, February 28, 1967. ED 011 408: $1.40 paper, $0.25 microfiche.

Department of Elementary School Principals. The Nongraded School. (A reprint of articles from the November 1967 and January 1968 issues of The National Elementary Principal.) Washington, D. C.: National Education Association, DESP, 1968. ED 032 242: paper not available from EDRS. $0.50 microfiche. Available from National Education Association, 1201 16th Street, N. W., Washington, D. C. 20036, for $2.00 as stock #181-05550.

Esbensen, Thorwald. Working with Individualized Instruction, The Duluth Experience. Palo Alto, California: Fearon Publishers, 1968.

Franklin, M. P. School Organization: Theory and Practice. New York: Rand McNally, 1967.

Frazier, A. "Individualized Instruction." Educational Leadership, 25 (April 1968), 616-624.

Frederickson, Ronald H., and others. The Amherst Ungraded Secondary Schools: An Evaluation Report. (Volume I) and Appendices (Volume II). Amherst, Massachusetts: Amherst-Pelham Regional School District, and University of Massachusetts. December 1968. ED 032 621: $43.95 paper, and $3.25 microfiche.

Fruscione, Albert A., and Richards, Sumner F. "An Alternative to Conventional Classroom Structure." Science Teacher, 37, 1 (January 1970), 27-30.

Funaro, G.; Phillips, E.; and Meyer, J. "Team Teaching." The Clearing House, 43 (March 1969), 401-410.

Garvey, James F. "Possible Over-Emphases on Large-Group Instruction." Education, 89, 2 (February-March 1969), 213-214.

Gibson, T. L. "Instructional Systems Design through Inservice Education." Audio-visual Instruction, (September 1968), 710-714.

Goldstein, W. "Problems in Team Teaching." The Clearing House, 42 (October 1967), 83-86.

Goodlad, J.I. School, Curriculum, and the Individual. Waltham, Massachusetts: Blaisdell, 1967.

Gorman, Charles J. "Annual Reassignment of Teachers: An Important Ingredient of Nongrading." Elementary School Journal, 69, 4 (January 1969), 192-197.

Hamann, H. "Longer School Year?" Illinois Schools Journal, 48 (Spring 1968), 47-50.

Heathers, G. Organizing Schools through the Dual Process Plan. Danville, Illinois: Interstate, 1967.

Hines, Vynce A, and Alexander, William M. "Evaluating the New Middle School." National Elementary Principal, 48, 4 (February 1969), 32-36.

Hoover, Kenneth H. "Flexible Scheduling and Affective Learning." Educational Research, 12, 1 (November 1969), 70-72.

Howard, E.R., and Bardwell, R.W. How to Organize a Nongraded School. Englewood Cliffs, New Jersey: Prentice-Hall, 1966. (Paper back)

Howell, Bruce. "The Middle School--Is It Really Any Better?" North Central Association Quarterly, 43, 3 (Winter 1969), 281-287.

Institute for the Development of Educational Activities. Individualizing Instruction: A Selected Bibliography. The I/D/E/A Bibliography Series. Dayton, Ohio: I/D/E/A, 1968. ED 030 619: $1.25 paper, $0.25 microfiche.

Jensen, L. "Description of Team Teaching at Roy High School." The American Biology Teacher, 30 (February 1958), 119-123.

Jesser, David L., and Stutz, Rowan C., eds. Scheduling for Flexibility in Small Schools. Salt Lake City, Utah: Western States Small Schools Project, April 1966. ED 021 657: $1.10 paper, $0.25 microfiche.

Kindred, Leslie W., and others. The Intermediate Schools. New York: Prentice-Hall, Inc., 1968.

Klausmeier, Herbert J., and others. The Multiunit Organization (I & R Units) and Elementary Education in the Decades Ahead. Madison, Wisconsin: Research and Development Center for Cognitive Learning, 1968. ED 027 238: $1.80 paper, $0.25 microfiche.

Klausmeier, Herbert J., and Quilling, Mary R. An Alternative to Self-Contained, Age-Graded Classes. Madison: University of Wisconsin, 1967. ED 016 010: $0.85 paper, $0.25 microfiche.

Korb, M. "Positive and Negative Factors in Team Teaching." The Mathematics Teacher, 61 (January 1968), 50-53.

Koser, John F. "Independent Scheduling Enhances IPS Program." Science Teacher, 36, 7 (October 1969), 74-76.

Lee, Jack P., and March, Jerald C. "Time Utilization for Optimum Learning." Journal of Secondary Education, 44, 2 (February 1969), 58-61.

Lewis, William P. Demonstration of a Nongraded Plan of an Elementary School, Utilizing Team Teaching and Programed Instruction to Facilitate Learning in Reading and Mathematics. Alabama: Troy State College, October 1966. ED 010 329: $4.45 paper, $0.50 microfiche.

Lewy, Rafael A. Individually Prescribed Instruction and Academic Achievement. A Report on an Experimental Project. March 1969. ED 033 082: $7.95 paper, $0.75 microfiche.

Lindvall, C., and Cox, C. "Role of Evaluation in Programs for Individualized Instruction." National Society for the Study of Education Yearbook, part 2 (1969), 156-188.

Lozanoff, P. "Specialized Teaching: Progress Report." The American Biology Teacher, 30 (February 1968), 114-118.

Maxey, James. Evaluation of the Outcomes of Modular Scheduling. Iowa City: Center for Research in School Administration, SR-60, December 1968. ED 026 733: $0.60 paper, $0.25 microfiche.

Mayo, G. Douglas. "Individualized Instruction Concepts and Measurement." NSPI Journal, 8, 10 (December 1969-January 1970), 12-13.

McCarthy, R.J. How to Organize and Operate a Middle School. Englewood Cliffs, New Jersey: Prentice-Hall, 1967.

McLoughlin, William P. The Nongraded School: An Annotated Bibliography. Albany, New York: State Education Department, September 1967. ED 026 289: $1.85 paper, $0.25 microfiche.

Meierhenry, W.C., and others. Media and Educational Innovation, A Symposium on Identifying Techniques and Principles for Gaining Acceptance of Research Results of Use of Newer Media in Education, Preliminary Report. Lincoln: University of Nebraska, 1964. ED 003 134: $17.80 paper, $1.50 microfiche.

"Middle Schools in Theory and in Fact." NEA Research Bulletin, 47, 2 (May 1969), 49-52.

Miller, Marian B. Guidance and Elementary School Climate. Dover, Delaware: State Department of Public Instruction, 1961. ED 002 826: $3.45 paper, $0.50 microfiche.

Miller, Richard I., and others. The Nongraded School, Analysis and Study. New York: Harper and Row, 1967.

Mitchell, Bruce M. "Small Class Size: A Panacea for Educational Ills?" Peabody Journal of Education, 47, 1 (July 1969), 32-35.

Moore, Edgar C. L. "Individualizing the Early Elementary Classroom." Independent School Bulletin, 28, 4 (May 1969), 43-45.

Moss, Theodore C. "The Middle School Comes--And Takes Another Grade or Two." National Elementary Principal, 48, 4 (February 1969), 37-41.

Murphy, Judith. Middle Schools. Profiles of Significant Schools. New York: Educational Facilities Labs., Inc., 1967. ED 031 037: $3.45 paper, $0.50 microfiche.

Myer, James L. "Teaming a First Step for Interdisciplinary Teaching." Clearing House, 43, 7 (March 1969), 406-410.

Neill, George W., and others. Individually Prescribed Instruction. EDUCATION U. S. A. SPECIAL REPORT (8th). Washington, D. C.: National School Public Relations Association, 1968. ED 031 815: paper not available from EDRS. $0.25 microfiche. Available from EDUCATION U. S. A., 1201 16th Street, N. W., Washington, D. C. 20036, for $2.00.

Nielsen, Paul, and Keropian, Robert. "How to Gain Instructional Time without Additional Cost." Journal of Secondary Education, 44, 1 (January 1969), 25-30.

Oestreich, Arthur H. "Middle School in Transition." Clearing House, 44 (October 1969), 91-95.

Olson, C. "Why Teaching Teams Fail." Peabody Journal of Education, 45 (July 1967), 15-20.

Ontario Institute for Studies in Education. Planning and Implementing Change in Ontario Schools. A Report of the Committee on the Implementation of Change in the Classroom. Toronto, Canada: OISE, nd. ED 019 737: $2.25 paper, $0.25 microfiche.

Pansino, Louis P., comp. The Middle School: A Selected Bibliography with Introduction. Urbana, Illinois: Bureau of Educational Research, University of Illinois, 1969. ED 029 714: $0.50 paper, $0.25 microfiche.

Pennsylvania School Study Council. The Middle School, A Selected Bibliography. University Park, Pennsylvania: PSSC, November 1967. ED 021 315: $0.70 paper, $0.25 microfiche.

Peterson, C. H. Effective Team Teaching: The Easton Area High School Program. West Nyack, New York: Parker, 1966.

Petrequin, G. Individualizing Learning through Modular-Flexible Programming. New York: McGraw-Hill, 1968.

Philadelphia School District. Education Specifications: New Middle School. Philadelphia: PSD, 1968. ED 032 726: $6.35 paper, $0.50 microfiche.

Poirier, Gerard A. "Isn't It Time to Change from Linear Teaching to Team Teaching?" Journal of Secondary Education, 44, 6 (October 1969), 243-251.

Polos, N.C. Dynamics of Team Teaching. Dubuque, Iowa: William C. Brown, and Co., 1965.

Polos, N.C. "Flexible Scheduling--Advantages and Disadvantages." Education, 89, 4 (April-May 1969), 315-319.

Popper, S. The American Middle School: An Organizational Analysis. Waltham, Massachusetts: Blaisdell Publishing Company, 1967.

Popper, S. "Institutional Integrity and Middle School Organization." Journal of Secondary Education, 43 (April 1968), 189-191.

Pumerantz, Philip. "State Recognition of the Middle School." NASSP Bulletin, 53, 335 (March 1969), 14-19.

Ramsey, L., and Wiandt, S. "Individualizing Elementary School Science." School Science and Mathematics, 67 (May 1967), 419-427.

Ramsey, Wallace A., ed. Organizing for Individual Differences. Perspectives in Reading, No. 9. Newark, Delaware: International Reading Association, IRA-PR-9, 1967. Available from International Reading Association, 6 Tyre Avenue, Newark, Delaware 19711, for $3.50.

Read, Betty. Grade Level Organization in a School System. Albuquerque, New Mexico: The Future Schools Study, Albuquerque Public Schools, September 1969.

Reid, John Lyon, and others. "A Special Kind of Middle School." Nation's Schools, 83, 5 (May 1969), 76-79.

Richardson, Robert J. "An Information System for Individualized Instruction in an Elementary School." Educational and Psychological Measurement, 29, 1 (Spring 1969), 199-201.

Rogers, Luther H., and Breivogel, William F. The Nongraded School. Gainesville, Florida: University of Florida, 1968. ED 033 083: $2.60 paper, $0.25 microfiche.

Runaro, George J. "Team Teaching: The Danger and the Promise." Clearing House, 43, 7 (March 1969), 401-403.

Sanders, S. "Challenge of the Middle School." The Educational Forum, 32 (January 1968), 191-197.

Sartain, H. "Applications of Research to the Problem of Instructional Flexibility." Conference on Reading. University of Pittsburgh Report, 22 (1966), 97-113.

Schlaadt, Richard G. "An Analysis of the Effectiveness of Team Teaching Compared to Traditional Teaching of Health to High School Sophomore Students." Research Quarterly of the AAHPER, 40, 2 (May 1969), 364-367.

Schmuck, Richard A. "Helping Teachers Inprove Classroom Group Process." Journal of Applied Behavioral Science, (October-December 1968), 401-436.

Shawver, E. "Team Teaching: How Successful Is It?" The Clearing House, 43 (September 1968), 21-26.

Shearron, G., and Wait, H. "Nongraded Elementary Schools: A Survey of Practices." The National Elementary Principal, 47 (November 1967), 39-42.

Shelly (E. F) and Company. An Educational System for the Seventies. Revised Edition. Interim Report. New York: Shelly and Co., June 26, 1969. ED 032 631: $1.00 paper, $0.25 microfiche.

Shinn, Byron M., Jr. A Bibliography (with Selected Annotations) on Nongraded Elementary Schools. Urbana: University of Illinois, Bureau of Educational Research, February 1967. ED 015 024: $1.15 paper, $0.25 microfiche.

Shuford, Emir H., Jr., and Massengill, H. Edward. The Relative Effectiveness of Five Instructional Strategies. Lexington, Massachusetts: Shufford-Massengill Corp., June 1967. Document available from Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151, as AD-677 206.

Simendinger, E. "Team Teaching in Science." The Science Teacher, 34 (October 1967), 49-51.

Simmons, James C., and Garvue, Robert J. An Examination of the Socio-Economic Implications of the Adoption of Individually Prescribed Instructional Systems by School Systems. Final Report. Tallahassee: Florida State University, Department of Education; and Institute for Social Research, January 1969. ED 031 801: $5.15 paper, $0.50 microfiche.

Smith, Donna M., and Fitch, Judith Pruess. Team Teaching Bibliography. Minneapolis: Upper Midwest Regional Educational Laboratory, Inc., 1969. ED 035 098: $5.25 paper, $0.50 microfiche.

Smith, Lee L. A Practical Approach to the Nongraded Elementary School. West Nyack, New York: Parker Publishing Company, 1968.

Smith, R. G. The Design of Instructional Systems. Washington, D. C.: Human Resources Research Office, George Washington University, TR 66-18, November 1966.

Sojonky, A. The Nongraded Continuous Progress Plan: Report of the Self-Evaluation Study, 1968. Regina, Canada: Saskatchewan Department of Education, 1969. ED 029 390: $4.70 paper, $0.50 microfiche.

Sowers, Paul C. Let's Team Teach in Our Elementary School. NASEC Monograph Series, Spectrum. Flagstaff, Arizona: Northern Arizona Supplementary Education Center, May 1968. ED 030 941: $1.25 paper, $0.25 microfiche.

Sowers, Paul C. Nongrading Your Elementary School. NASEC Monograph Series, Spectrum. Flagstaff, Arizona: Northern Arizona Supplementary Education Center, June 1968. ED 030 943: $1.45 paper, $0.25 microfiche.

Sowers, Paul C. Open-End Elementary Education. NASEC Monograph Series, Spectrum. Flagstaff, Arizona: Northern Arizona Supplementary Education Center, April 1968. ED 030 942: $1.05 paper, $0.25 microfiche.

Spencer, D. "Individualized Vs. a Basal Reader Program in Rural Communities, Grades One and Two." The Reading Teacher, 21 (October 1967), 11-17.

Splawn, Robert E., and Stoker, W. M. Administering the Nongraded School. September 1, 1967. ED 016 283: $4.05 paper, $0.50 microfiche.

Starlin, Glenn, and Lallas, John E. Interinstitutional Teaching by Television in the Oregon State System of Higher Education. Monmouth: Oregon State System of Higher Education, March 1960. ED 003 158: $5.05 paper, $0.50 microfiche.

Steere, Bob F. An Evaluation of a Nongraded Secondary School. Final Report. Logan, Utah: Utah State University, December 1967. ED 018 003: $7.35 paper, $0.75 microfiche.

Stehney, Virginia A. "Why Multiage Grouping in the Elementary School?" National Elementary Principal, 49, 3 (January 1970), 21-23.

Stemnock, Suzanne K. Middle Schools in Action. Educational Research Circular Number Two. Washington, D. C.: American Association of School Administrators, March 1969. ED 032 637: paper not available from EDRS, $0.50 microfiche. Available from Educational Research Service, 1201 16th Street, N. W., Washington, D. C. 20036, for $2.00.

Stolurow, L. M. Some Educational Problems and Prospects of a Systems Approach to Instruction. Urbana, Illinois: University of Illinois, Training Research Laboratory, March 1964.

Strickland, Joann H., and Alexander, William. "Seeking Continuity in Early and Middle School Education." Phi Delta Kappan, 50, 7 (March 1969), 397-400.

Stutz, Rowan C. Promising Practices for Small Schools Improvement. Annual Progress Report. Salt Lake City, Utah: Western States Small Schools Project, September 1965. ED 020 065: $5.50 paper, $0.50 microfiche.

Swenson, G., and Keys, D. T. Providing for Flexibility in Scheduling and Instruction. Englewood Cliffs, New Jersey: Prentice-Hall, 1966. (Paperback)

Tewksbury, J. L. Nongrading in the Elementary School. Columbus, Ohio: Merrill, 1967.

Texas Education Agency. Texas Small Schools Project, 1968. Austin: Texas Education Agency, February 1969. ED 033 807: $1.50 paper, $0.25 microfiche.

"The Flexible School." American School Board Journal, (December 1967), 1-4.

Thelen, H. A. Classroom Grouping for Teachability. New York: John Wiley and Sons, Inc., 1968.

Thomas, G.I., and Crescimbeni, J. Individualizing Instruction in the Elementary School. New York: Random House, 1967.

Varner, Sherrell E. The Rescheduled School Year. Washington, D.C.: National Education Association, RS-1968-S2, 1968. ED 032 625: paper not available from EDRS. $0.25 microfiche. Available from NEA, 1201 16th Street, N.W., Washington, D.C. 20036, for $1.00.

Wall, Harvey R., and Reasoner, Robert W. Team Teaching. A Descriptive and Evaluative Study of a Program for the Primary Grades. Concord, California: Mount Diablo Unified School District, February 1962. ED 027 083: $7.10 paper, $0.75 microfiche.

Wallin, Herman A. "Some Dysfunctional Effects of Certain Totalistic Features of Complex Organizations with Special Reference to Secondary Public Schools." High School Journal, 53, 3 (December 1969), 189-197.

Wattenberg, William W. "The Middle School as One Psychologist Sees It." High School Journal, 53, 3 (December 1969), 164-171.

Wehmhoefer, Roy A. The Twelve Month School Year; A Study of the Advantages and Disadvantages of the Four Quarter System. Chicago: Cook County Public Schools, February 1968. ED 022 252: $0.85 paper, $0.25 microfiche.

Whitney, Howard, and Piele, Philip, comps. Annotated Bibliography on Year-Round School Programs. Eugene, Oregon: ERIC Clearinghouse on Educational Administration, October 1968. ED 023 199: $0.60 paper, $0.25 microfiche.

Wigderson, Harry I. Team Teaching. Revised July, 1968. Visalia, California: ADAPT, a PACE Supplementary Educational Center, July 1968. ED 025 013: $1.85 paper, $0.25 microfiche.

Wiley, W., and Bishop, L. Flexibly Scheduled High School. Englewood Cliffs, New Jersey: Prentice-Hall, 1968.

Wilson, Mildred T., and Popper, Samuel H. "What about the Middle School?" Educational Digest, 35, 5 (January 1970), 16-18.

Wing, Richard L. Use of Technical Media for Simulating Environments to Provide Individualized Instruction. Board of Cooperative Educational Services, 1965. ED 003 024: $7.70 paper, $0.75 microfiche.

Wolfson, B. "Pupil and Teacher Roles in Individualized Instruction." The Elementary School Journal, 68 (April 1968), 357-366.

HOW TO LOCATE AND ORDER ERIC DOCUMENTS

Many of the documents listed in this bibliography were processed by the ERIC system and have been announced in Research in Education (RIE), the monthly ERIC index and abstract catalog. Each ERIC document is indicated by an "ED" number enclosed in parentheses at the end of the citation. The "ED" number is the document's index number and can be used to locate the particular issue of RIE in which the document's abstract appears.

Most ERIC documents can be ordered from the ERIC Document Reproduction Service. If a document is available from EDRS, its order number and prices are included in the parentheses. To order documents from EDRS, indicate:

- the ED numbers of the desired documents (titles need not be furnished)
- the type of reproduction desired--hard copy (HC) or microfiche (MF)
- the number of copies being ordered

Payment must include a special handling charge of 50 cents on all orders, and must accompany orders totaling less than $5.00. Also add applicable sales tax or submit tax exemption certificate when ordering from any State having a sales tax. Foreign orders, with the exceptions of Canada and Mexico, must include a 25% service charge, calculated to the nearest cent. Orders from Canada and Mexico must include a 15% service charge only if they exceed $50.00.

Address requests to:

ERIC Document Reproduction Service
The National Cash Register Company
4936 Fairmont Avenue
Bethesda, Maryland 20014